

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1. (Previously Presented) A method of identifying a reagent that modulates a lipid comprising the steps of:

- (a) exposing said reagent to HBM or Zmax1;
- (b) determining whether said reagent binds to HBM or Zmax1;
- (c) administering said reagent to an animal and determining whether said reagent modulates a lipid in said animal.

Claim 2. (Previously Presented) The method of claim 1, wherein said reagent is a protein, an mRNA, or an antisense nucleic acid.

Claims 3-5. Cancelled.

Claim 6. (Currently Amended) A method for identifying reagent that modulates a lipid comprising:

- (A) identifying a first molecule that binds to a nucleic acid of SEQ ID NO: 1, a Zmax1 nucleic acid comprising a polymorphism of Table 4, except for the C/A base change at location 21119 (308G), or SEQ ID NO: 2;
- (B) measuring the binding of the first molecule to SEQ ID NO: 1, SEQ ID NO: 2, or the Zmax1 nucleic acid comprising polymorphism; and,
- (C) comparing the extent of binding of the first molecule to each nucleic acid sequence, wherein the molecule that binds, or inhibits binding, more or less to the HBM nucleic acid sequence of SEQ ID NO: 2 versus the Zmax1 nucleic acid sequence of SEQ ID NO: 1 or a Zmax1 nucleic acid comprising a polymorphism of Table 4, except for the C/A base change at location 21119 (308G), ~~is the candidate molecule; and~~
- (D) administering said reagent to a cell and determining whether said reagent modulates a lipid in said cell.

Claim 7. (Currently Amended) The method of claim 6, wherein the ~~candidate molecule~~ reagent is a protein, an mRNA, or an antisense nucleic acid.

Claims 8-47. Cancelled.

Claim 48. (Previously Presented) The method of claim 1, wherein the HBM or Zmax1 is in solution.

Claim 49. (Previously Presented) The method of claim 1, wherein the HBM or Zmax1 is affixed to a solid support.

Claim 50. (Previously Presented) The method of claim 1, wherein the HBM or Zmax1 is located on a cell surface.

Claim 51. (Previously Presented) The method of claim 1, wherein the HBM or Zmax1 is expressed by a host cell.

Claim 52. (Currently Amended) The method of claim 48, wherein step (b) is determined by exposing said reagent in a mixture with a known ligand to HBM or to Zmax1 and assessing competitive binding of said agent to said known ligand.

Claim 53. (Previously Presented) The method of claim 1, wherein HBM is SEQ ID NO:4.

Claim 54. (Previously Presented) The method of claim 2, wherein binding of said reagent is identified by co-immunoprecipitation with HBM or Zmax1.

Claim 55. (Previously Presented) The method of claim 2, wherein binding of said reagent is identified by co-fractionation with HBM or Zmax1.

Claim 56. (Previously Presented) The method of claim 2, wherein binding of said reagent is identified by binding to HBM or Zmax1 via a two-hybrid system in which a bait vector encodes an extracellular domain of HBM or Zmax1.

Claim 57. (Previously Presented) The method of claim 1, further comprising determining whether said reagent differentially binds to Zmax1 versus HBM.

Claim 58. (Previously Presented) The method of claim 1, wherein said reagent binds to HBM.

Claim 59. (Previously Presented) The method of claim 1, wherein said reagent binds to Zmax1.

Claim 60. (Previously Presented) The method of claim 1, wherein said reagent binds to HBM and to Zmax1.

Claim 61. (Previously Presented) The method of claim 1 further comprising the step of determining whether the reagent that binds to HBM and/or Zmax1 binds to HBM to a greater or lesser extent than to Zmax1.

Claim 62. (Previously Presented) The method of Claim 58, wherein the HBM is a protein.

Claim 63. (Previously Presented) The method of Claim 59, wherein the Zmax1 is a protein.

Claim 64. (Previously Presented) The method of Claim 60, wherein the Zmax1 and HBM are protein.

Claim 65. (Previously Presented) The method of Claim 2, wherein said reagent is a protein.

Claim 66. (Previously Presented) The method of Claim 1, wherein the lipid is a triglyceride and/or a very low density lipoprotein (VLDL) and wherein the reagent reduces the amount of triglyceride and/or VLDL in the animal.

Claim 67. (Currently Amended) The method of Claim 6, wherein the lipid is a triglyceride or a very low density lipoprotein (VLDL) and wherein the reagent reduces the amount of triglyceride and/or VLDL in the animal.